

Jpn. J. Ent., 63(4): 735–738, December 25, 1995

A New *Hoplocampoides* (Hymenoptera, Tenthredinidae) Making Leaf Galls on *Weigela decora* (Caprifoliaceae) from Japan

Tikahiko NAITO

Entomological Laboratory, Faculty of Agriculture,
Kobe University, Rokko, Kobe, 657 Japan

and

Kasane USUBA

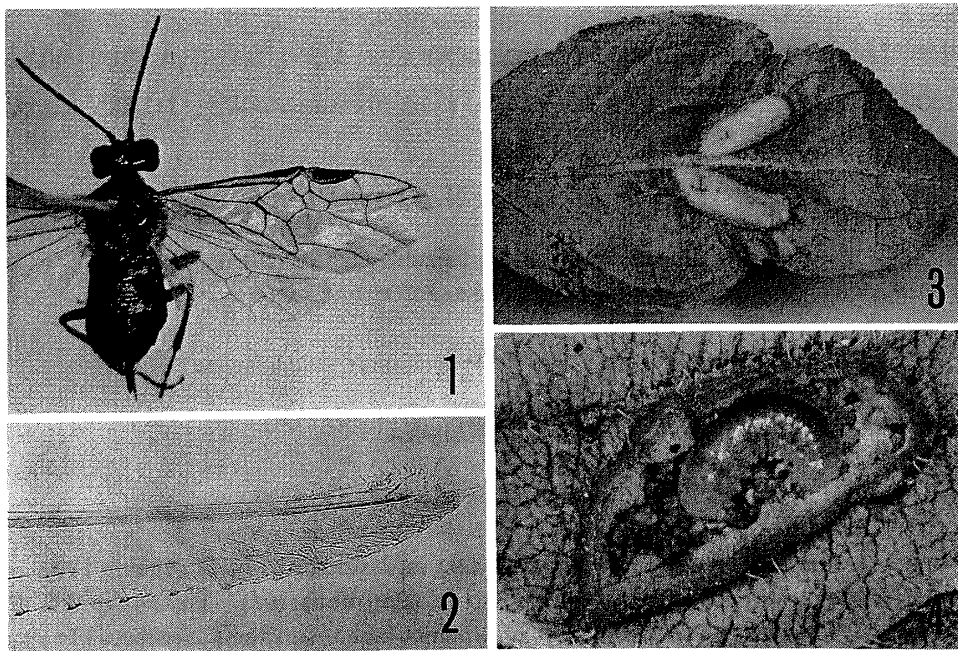
Negishi 5–20–4, 2–204, Urawa, 338 Japan

Abstract *Hoplocampoides longiserrus* n. sp. is described from Japan. The larva makes a leaf gall on *Weigela decora* (Caprifoliaceae). This is the first recorded sawfly to make leaf galls on plants other than the Salicaceae. The female lays one or two eggs into a young leaf of the host in early spring. The mature larva leaves the bean-shaped gall by mid-summer and makes a fragile cocoon in the ground to overwinter.

Key words: *Hoplocampoides*; leaf galler; *Weigela decora*; Tenthredinidae; Hymenoptera.

Two phyletic groups of gall-making sawflies are known in the Tenthredinidae. One group is composed of three related genera in the Nematinae, *phyllocolpa*, *Pontania* and *Euura*, which are represented by more than 100 world species and make variously shaped galls on leaves, stems or buds of the Salicaceae (BENSON, 1960; SMITH, 1970). The other group consists of two related genera of the Blennocampine tribe Lycaotini, the North American genus *Blennogeneris* and the European genus *Hoplocampoides*. Hosts and habits are known for only a single species for each genus, and each is a gall maker. *Blennogeneris spissipes* (CRESSON) makes a bud gall on *Symphoricarpos*, and *H. xylostei* (GIRAUD) makes a stem gall on *Lonicera* (BENSON, 1966; ENSLIN, 1914; PSCHORN-WALCHER, 1975). Both host plants are in the Caprifoliaceae.

MONZEN (1930) recorded leaf galls on *Weigela decora* (Caprifoliaceae) from Aomori Prefecture, Japan, and believed that they were caused by a sawfly. However, there has been no further study on this gall and the gall maker. We recently found the sawfly galls on *Weigela decora* in mountain areas in northern Honshu (USUBA, 1981), and the junior author observed females laying eggs into the young leaves of this plant and collected them after oviposition. This sawfly represents the second known species of *Hoplocampoides*. We describe the adult of this species and give biological notes below.



Figs. 1-4. *Hoplocampoides longiserrus* n. sp. —1, Holotype female in dorsal view. 2, saw in lateral view. 3, galls on *Weigela decora*. 4, mature larva.

Hoplocampoides longiserrus NAITO, n. sp.

(Figs. 1-4)

Female (holotype, Fig. 1). Length 4.2 mm. Black; posterior margin of pronotum, tegula, extreme apices of coxae and apices of tibiae yellowish brown; all tibiae except apices and tarsi brownish; labrum, apical half of mandible and upper 1/3 of sawsheath dark brown. Wings hyaline; veins dark brown; anal veins somewhat pale.

Head rectangular in dorsal view: length: breadth=about 3:4; shining and weakly, irregularly punctured; frontal area and adjacent area of lateral side smooth. Labrum gently round in front. Clypeus gently convex, nearly straight on frontal margin. Mandible bidentate. Median fovea triangular in outline. Lateral fovea open below. Frontal area platform-like. Interocellar furrow and postocellar furrow obsolete. Vertical furrow linear, not reaching posterior margin of head. Postocellar area short; breadth: length=about 5:1. Malar space about 2/3X diameter of front ocellus. Occipital carina wanting. Antenna filiform, about 2.0X breadth of head; relative lengths of segments about 4:3:17:15:14:12:11:10:10.

Thorax shining, almost smooth; mesoscutal middle lobe and apical portion of lateral lobe finely punctured. Cervical sclerites pointed, far from each other. Mesoanepimeron with small pit on hind corner. Post-tergite short, length

nearly same as diameter of front ocellus. Width of each cenchrus about 2.0X distance between cenchri. Fore wing with two radial and four cubital cells; distance between M and Rs+M on Sc+R about same as length of vein 2 r-m; M and 1 m-cu parallel; anal cell medially constricted for about 1/5 as long as cell length. Hind wing with one middle cell, anal cell with long petiole about 3.0 X breadth of cell. Inner front tibial spur bifid at apex; outer spur very thin, length about 0.5X inner spur. Tarsal claw simple, gently round toward apex.

Abdomen shining, reticulate throughout; sawsheath smooth, flat in dorsal view, broad in lateral view, and clearly exceeding apex of abdomen. Saw as in Fig. 2.

Male. Unknown.

Holotype. Female, Mt. Haruna (1100 m), Gunma Pref., 16. v. 1993, K. USUBA leg., collected on *Weigela decora*. Deposited in the Entomological Laboratory, Kobe University.

Paratypes. 2 ♀, same data as for holotype; 2 ♀, Mt. Haruna, 23. v. 1993, K. USUBA leg. Three paratypes are deposited in Kobe University and one paratype in the U.S. National Museum, Washington, D. C.

Distribution. Japan (Honshu, Kyushu). Adults have only been collected at the type locality, but these distinctive galls on *Weigela decora* have been found at Kamikochi (1500 m), Nagano Pref. on 11. viii. 1981 and 12. viii. 1985 by T. NAITO, at Shiobara, Tochigi Pref. on 14. vii. 1981 by K. USUBA, and at Aoki-zawa, Gunma Pref. on 30. vii. 1981 by K. USUBA, all in Honshu. Mr. E. TOKUHISA found such a gall on *Weigela japonica* at Mt. Hikosan, Fukuoka Pref., Kyushu, on 13. v. 1981. This gall may have been caused by this new sawfly species.

Remarks. This new species is similar to the European *H. xylostei*, but separable from it by the black clypeus, the 4th antennal segment about 1.5X the 9th segment, and the distance between the veins M and Rs+M on Sc+R about the same as the length of the vein 2 r-m in the fore wing. The new species is a leaf galler on *Weigela decora* while *H. xylostei* is a bud galler on *Lonicera xylosteum*.

Biological notes. There is one generation a year. Adults appear in the last half of May at Mt. Haruna (1,100 m high), Gunma Prefecture. Females fly to the young leaves of *Weigela decora*, which are not quite open, and stay along a secondary vein on the back of the leaves. They make a slit in the leaf tissue across the secondary vein and deposit one egg. After a few days, the area on the leaf surrounding the egg changes color from green to light green and begins to swell. By the middle of June, the gall expands and is about 8.3 mm long, 3.7 mm wide, and 1.5–2.0 mm thick. At this time the gall is light green to reddish yellow, beanlike in shape, filled with plant tissue. Larvae hatch during the last of June and first of July, when the galls are fully developed. The gall is then

about 10–11 mm long, 4–6 mm wide, and about 3 mm thick. The galls are rounded projections on the under surface of the leaf. If there are two galls, they are located symmetrically against the main vein (Fig. 3). One whitish larva lives in a gall (Fig. 4), and, when mature about the middle of July to the first of August, exits the gall leaving a 1.0–2.0 mm diameter hole at the apical portion of the underside. The larva makes a fragile cocoon near the surface of the ground in which it overwinters. Pupation and adult emergence occur the next spring.

Acknowledgements

We wish to express our gratitude to Dr. D. R. SMITH, Systematic Entomology Laboratory, USDA, Washington D. C., for reading through the manuscript, to Mr. I. KOGURE of Maebashi-shi, Gunma Pref. for his cooperation in collecting galls, and Mr. E. TOKUHISA of Fukuoka Pref. for giving information of the galls in Kyushu.

References

- BENSON, R. B. 1960. Studies in *Pontania* (Hymenoptera, Tenthredinidae). *Bull. Br. Mus. nat. Hist. (Ent.)*, **8**: 369–384.
- 1966. A new genus of the Lycaotini (Blennocampinae) in Turkey (Hymenoptera: Tenthredinidae). *Proc. R. ent. Soc. London. (B)* **35**: 75–77.
- ENSLIN, E. 1914. Die Tenthredinoidea Mitteleuropas. *Deutsch. ent. Zeitschr.*, Beiheft., 251–252.
- MONZEN, K. 1930. Studies on insect galls. *Sci. Rept. Morioka agr. Coll.*, **6**: 270–294. (In Japanese.)
- PSCHORN-WALCHER, H. 1975. Massenaufreten der Blattwespe *Hoplocampoides xylostei* GIRAUD (Hym.: Tenthredinidae) im badischen Rheintal und ihr Vorkommen im Schweizer Jura. *Mitt. schweiz. ent. Ges.*, **48**: 141–145.
- SMITH, E. L. 1970. Biosystematics and Morphology of Symphyta. II. Biology of gall-making Nematine sawflies in the California Region. *Ann. ent. Soc. Amer.*, **63**: 36–51.
- USUBA, K. 1981. Notes on insect galls, V. *Insekuto, Tokyo*, **32**: 60–67. (In Japanese.)

(Received May 25, 1994; Accepted March 17, 1995)